

## ABSTRACT

An inertial mass motion seismic power converter with single or multi-axis sensitivity, the output being used as a power or control input to the seismic protection system of a building or bridge, or other base-isolated or non-isolated structure. The power converter has an inertially free floating mass or piston in a chamber or hydraulic cylinder. The power converter is connected to at least one servomechanism or slave device that either facilitates relative motion of a base-isolated structure as to ground, or moves a counter motion mass in the structure in opposition to the seismic motion. The power converter is buried in the earth near the protected structure so it is reactive only to seismic motion. The size and density of the power converter mass is directly proportional to the amount of seismic energy that can be converted for protecting structures from seismic damage.